

REMARKS

Reconsideration of the application is requested in view of the above amendments and the following remarks. Claims 1, 6, 13, 21, 27, 33, 34, 39-41, 43, 45 and 51 have been amended. Amendments to the claims 1, 13, 21, 27, 39-41, 43, 45 and 51 are supported by at least Figures 1-10, page 7, line 25 to page 8, line 4, and page 10, lines 7-9 of the present application. Claims 6, 33 and 34 have been amended to address formal matters only. No new matter has been added.

§112 Rejections

Claims 33 and 34 were rejected under 35 U.S.C. §112, second paragraph as being indefinite. Claims 33 and 34 have been amended to depend from claim 27 and are now definite.

§102 Rejections

Claims 1-3, 10-13, 15, 16, 20-22, 26, 41 and 42 were rejected under 35 U.S.C. §102(b) as being anticipated by Dew, US 3,436,827. Applicant respectfully traverses this rejection.

Dew discloses a two-piece dental matrix for holding or reproducing a portion of a jaw in the process of fabricating a dental model. The dental matrix 10 defines a cavity in which a curable material, such as plaster, is retained while dental model is formed. The cavity is defined by a horizontal base 12, a U-shaped wall 30, and an upstanding wall member 24. Therefore, dental matrix 10 is a multi-piece unit rather than a "single piece" encasement member, as required by claims 1 and 13, and the claims that depend from them.

Further, the dental matrix 10 disclosed by Dew includes a discontinuous wall defining a cavity that holds the curable material. The wall includes portions of U-shaped wall 30 and upstanding wall member 24, resulting in a wall structure that is broken at the intersection of features 30 and 24 and is not "continuous" or "continuous around a circumference of the cavity" as required by claims 13 and 41, and the claims that depend from them.

Dew also discloses a ledge 56 that extends along the side wall elements 34 and project laterally into the cavity to form a platform 58 at the top of each side wall element. However, the ledge 56 does not include "a recess defined by the encasement member into which a portion of the stone member projects," as required by claim 12.

There is no disclosure or suggestion by Dew of an "attachment plate" that is separate from and that connects to an "encasement member by a snap-fit connection," as required by claim 42. The end 14 of horizontal base 12 disclosed by Dew is integral with upstanding wall member 24 (col. 3, lines 4-15 of Dew). Also, the U-shaped wall 30 disclosed by Dew could not retain the curable material without at least the wall member 24, so wall 30 is not an "encasement member" by itself. Therefore, Dew separately fails to disclose the limitations of claim 42.

In view of the above, Applicant submits that Dew fails to disclose every limitation of claims 1-3, 10-13, 15, 16, 20-22, 26, 41 and 42, and the claims that depend from them. Withdrawal of the rejection is respectfully requested.

Claim 1, 2, 4, 21 and 23-26 were rejected under 35 U.S.C. §102(b) as being anticipated by Darnand, US 5, 100,317. Applicant respectfully traverses this rejection.

Darnand discloses a cupel 6 that holds a curable material and is removably connected to a cup 3 using a clamping screw 12 and a lug/notch feature (9,4). Features 12 and 4 are not positioned "within the cavity that fixedly retains the stone member within the cavity of the encasement member," as required by claim 1, and do not extend "into the cavity," as required by claim 21. Neither of features 12 and 4 actually engage the second part 15 of the model associated with cupel 6 so as to make the stone member and encasement member "inseparable" and secured together as required by claims 1 and 21, respectively.

Darnand also requires separate cupel 6 and cup 3 features to retain the dental model. Therefore, Darnand fails to disclose a "single piece encasement member" with the "structure" features required by claim 1.

In view of the above, Applicant submits that Darnand fails to disclose every limitation of claims 1, 2, 4, 21 and 23-26, and the claims that depend from them. Withdrawal of the rejection is respectfully requested.

Claims 45 and 46 were rejected under 35 U.S.C. §102(b) as being anticipated by Huffman, US 4,378,929. Applicant respectfully traverses this rejection.

Huffman '929 discloses a mold 80 that is filled with a pourable yellow stone to shape the stone into a stone base 90. When cured, the stone base 90 is removed from mold 80 by non-destructively distending the mold walls to release the base. Thus, the mold 80 includes walls that are flexible and deformable in order to "non-destructively distend" the mold walls. In contrast, the method of claim 45 includes "a cavity defined by a rigid encasement member."

Furthermore, Huffman '929 fails to disclose a "structure extending into the cavity that engages the casting material in said cavity such that the cured casting material is fixed to the encasement member," as required by claim 45. The mold 80 and all other molds disclosed by Huffman '929 are not intended nor are they structured to "fix" the mold and cured model together. Therefore, Huffman '929 fails to disclose every limitation of claims 45 and 46. Withdrawal of the rejection is respectfully requested.

§103(a) Rejections

Claims 4-9, 13-20, 24, 25, 27-31, 33, 34, 36, 37, 39, 40, 43 and 51-55 were rejected under 35 U.S.C. §103(a) as being unpatentable over Dew in view of Huffman, US 4,842,242. Applicant respectfully traverses this rejection.

Dew discloses the use of several pieces to create a cavity for forming a stone model. A cavity formed of several pieces inherently has discontinuities in the wall defining the cavity. Therefore, Dew fails to disclose a "single piece . . . encasement member comprising . . . a rigid wall" as required by claim 13, a "single piece . . . encasement member comprising; a continuous wall . . . said wall being rigid" as required by claim 27, "an encasement member having . . . a rigid wall . . . ; said wall extending continuously around a circumference of the encasement member thereby defining a cavity" as required by claim 39, an "encasement member including a continuously extending rigid wall that defines a cavity" as required by claim 40, or a "rigid, single piece encasement member defining a cavity" as required by claim 43, or a method that includes "filling a cavity defined by a rigid, single piece encasement member" as required by claim 51. Huffman '242 fails to remedy the deficiencies of Dew because the mold 70, 130 are made of a flexible material that can be deformed when non-destructively removing the mold from the cured stone. Therefore, Applicant submits that Dew and Huffman '242 fail to disclose or suggest every limitation of claims 13, 27, 39, 40, 43 and 51.

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